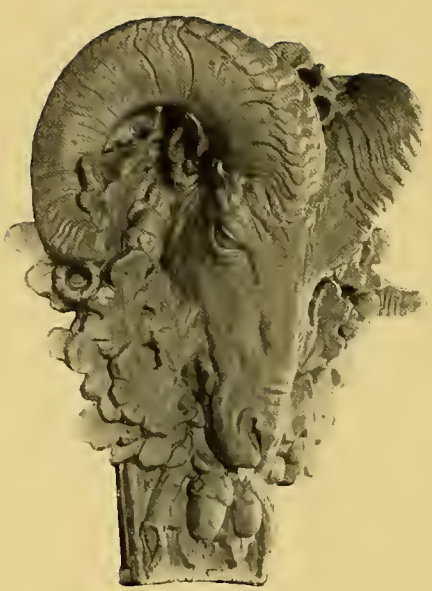
SHAPES OF CLAY

NOVEMBER
1925

GLADDING, McBEAN & CO.



"The bighorn is intimately associated with our thoughts of the mountain glaciers and snow-fields on which our power and irrigation water depend."

SHAPES OF CLAY

VOLUME I NUMBER 5

NOVEMBER · 1925

Out of Falling Waters

"The falling waters of California have been put to the service of its people." — WIGGINTON E. CREED.

THUS into one fine sentence the president of Pacific Gas and Electric Company has condensed the whole story of hydro-electric development on the Pacific Coast. Bitting and curbing those turbulent "falling waters," a contemporaneous group of pioneers has created for the Western Slope a new wealth, not so dazzling, perhaps, but more lasting and of a more wide-spread influence for good than the precious metals of mother lodes and bonanzas. The "white gold" of cascading mountain streams serves all the people with an impartial beneficence.

Public utility service implies heavy responsibilities to all the public; happily, it does not quarrel with—indeed, it has learned to lean heavily upon —the resources of beauty in nature and art. Falling snow waters lit by sunshine in pine-clad gorges are beautiful beyond compare, but there is no reason why power-houses and penstocks should be ugly. It speaks well for public utility standards that the pioneers of hydro-electric development find in art and architecture a wholly adequate expression of their aims and obligations. And it speaks well for public taste that the motives actuating this reliance upon art and architecture are very generally understood.

That the great Pacific Gas and Electric Company, which has dotted north-

ern and central California with beautiful power-houses, transformer stations, and other structures, should concentrate in the plans for its new home office at San Francisco all congruous modes of beauty as well as all proved instruments of utility, was the inevitable climax of a policy long pursued.

The site chosen for P. G. & E.'s general office building—the southeastern corner of Market and Beale streets—is one of bold dominance at the lower end of San Francisco's most famous thoroughfare. Seventy-five years ago, when San Francisco became an American city, the tides of the bay ebbed and flooded there, and it is permissible to see a certain propriety in the circumstance that the makers of a great new wealth for California should build their home on land reclaimed from water by engineers of long ago.

The structure rises seventeen stories from the sidewalk to a height of 260 feet. It rests upon a small forest of fifteen hundred Oregon-pine piles. These were driven through thick lenses of hard clay to the underlying hard-pan. Elaborate waterproofing was done before the heavy concrete mat was placed upon the pile foundation.

The skeleton of the building is of the full steel-frame type, with intermediate steel beams. Wind bracing was provided to resist a pressure of 350 tons, corresponding to the maximum wind velocity observed in lower Market Street during the last sixty years. Floor slabs are of reinforced concrete throughout, and the concrete is carried around all steel work as a protection against fire and corrosion. The concrete slabs project into the walls at each floor to support the terra-cotta exterior, so that all masonry is firmly bonded to the skeleton steel frame, making the building monolithic in character.

For design Messrs. Bakewell & Brown chose Renaissance in its modern adaptation to American business conditions, while for the chief ornamental expression they used the vernacular of the classic.

"Experience," the architects write, "has given more or less successful solutions of the office-building problem. It has been shown that the simple grouping of a multitude of elements into a few divisions or parts of a composition is necessary to achieve that unity which is so essential. . . . One of the ways of grouping is the division of the building into a high and important base, a general shaft, and, finally, a crowning motive. This is the scheme of composition adopted."

The base runs up three stories to a heavy ornamented band. The arched niche of the entrance soars to this band, while the arched windows of the base rise two stories. Above the base the shaft rises ten stories of severe simplicity, the pleasing tiers of windows being the only note of ornamentation. Another band tops the shaft, and then comes the crowning motive. The discerning eye that travels slowly from the majestic base of the building, with its generous openings and deep reveals, is prepared in some measure by the dignified restraint of the shaft for the architectural richness above. But it is only measurably prepared. As the eye drinks in the sudden and soul-satisfying beauty of the arcade and roof-stories, there comes the thrill, part intellectual, part sensuous, that has been described as "the ultimate delight of architecture."

Analyzing this "delight," one finds it due to a treatment as happy as it is unusual. The arcade is of Doric columns framing spacious windows. While Doric simplicity was desired, it was not allowed to annul the opulence sought in the crowning motive. The cornice overhangs without heaviness, accentuating the play of light and shadow; and the whole entablature is broken uniformly between columns, permitting them to support a series of graceful pinnacles that terminate the upspringing lines of the design with easy naturalness. The pinnacles enclose a balcony walled by the roof story, which is recessed and crowned with a pleasingly pitched roof of Cordova tile. The whole graceful effect is of that "art which conceals art"; but as usual in such effects of seemingly inevitable beauty, a wise subtlety is discerned that adds mental gratification to the pleasure of the eye. Thus, too, mind and eye lift with the obelisks that rise at the corners of the building.

The Market and Beale street fronts of the building are entirely clothed in Granitex terra-cotta, while the rear is finished to match the façades in Granitex brick. Both terra-cotta and brick were specially manufactured at the Lincoln kilns of Gladding, McBean & Co. Granitex was developed by the ceramic chemists at Lincoln through a long series of experiments designed to approximate the color and texture of gray granite. It was first used on the Standard Oil Building in San Francisco, where it has been greatly ad-

I · Pacific Gas and Electric Building, San Francisco — Bakewell & Brown, Architects

On San Francisco's most distinctive thoroughfare rises a great structure of steel and terra-cotta, a monument reared by modern Argonauts to signalize the creation of the West's new wealth—the "white gold" of hydro-electric energy.

II · Pacific Gas and Electric Building, San Francisco — Bakewell & Brown, Architects

Enriched by day with the play of sunshine and of cloud, the terra-cotta façades are responsive at nightfall to those calculated plays of artificial lighting that express the resources of mountain torrents tamed to city use.

mired. Subsequent experiments in both terra-cotta and brick have brought it closer than before to the color and texture desired. Explaining why Granitex terra-cotta was chosen, Messrs. Bakewell & Brown say:

"The treatment of the terra-cotta wall surface in rusticated courses serves two very useful purposes, one practical and one aesthetic. Large blocks of terra-cotta have a tendency to warp and twist in the process of making. The small grooves of the rustication break up the continuity of the surface, and the wavy appearance that would be apparent if the wall were absolutely of one surface is lost. These small grooves form continuous lines entirely around the building, carrying from one side of each window or opening to the other, and are of great assistance in tying the masses together. . . . In order to make the ornament, the fourteenth-story arcade, and other architectural detail appear to the best advantage, the use of a light-colored material was advisable. The most delicate ornament shows clearly, every line is revealed distinctly, and each shadow imparts its full impression on the light granite-gray color chosen."

And of the roof, in Gladding, McBean's Cordova tile, they say:

"The red roof, which makes a bright spot of color at the top of the building, is in pleasing contrast to the gray walls."

It speaks volumes for the plasticity of the medium that not only the base and shaft of this great structure, but also the intermediate bands of ornament, the Doric columns and entablature, the obelisks and pinnacles, and the very distinctive ornament for the entrance and the lower windows, were all rendered in terra-cotta. Edgar Walter, of San Francisco, one of America's most distinguished sculptors, has been acclaimed for his conception of the form this latter ornament should take. For the entrance keystone he modeled the head of a grizzly, and for the keystones of the window-arches he conventionalized the head of the mountain-sheep, or bighorn, now practically extinct, but perhaps the noblest animal of the High Sierras. Nothing more characteristically Californian has been done in sculptural ornament. For the arched niche of the entrance Mr. Walter produced a symbolic composition that tells the story of P. G. & E. activities, predominantly the story of hydro-electric power. In transferring Mr. Walter's models to everlasting "shapes of clay" the Lincoln plant of Gladding, McBean & Co. accomplished one of its most satisfactory achievements.

SHAPES OF CLAY

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Edward F. O'Day, Editor

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IT is the pleasant custom of the editor of the *Mercantile Trust Review of the Pacific* to give his readers from time to time surveys of the major industries of this region. In the issue dated November 15th there appeared an illuminating and ably prepared article on California's clay products industry. Believing that readers of SHAPES OF CLAY will find the detached viewpoint of a disinterested writer refreshing, we offer some excerpts from the article mentioned:

There is a large and growing demand for architectural terra-cotta, roofing tile and hollow tile that may tax the facilities of the plants producing these increasingly popular articles for building purposes. Some conspicuous examples of the possibilities of employing terra-cotta are found in San Francisco in the new Standard Oil Company, Pacific Gas and Electric Company, and Pacific Telephone and Telegraph Company buildings, to mention only a few large structures in which clay products have been used for surfacing, façade and ornamental purposes. . . .

Striking examples of what has been accomplished in the application of ceramic treatment to towering edifices can be seen today in every large city. . . .

The growing use of colored clay products in the ornamentation of commercial buildings and homes is everywhere apparent. The tendency to adorn the outer surfaces with materials that blend harmoniously with the colorful surroundings is becoming peculiarly a California characteristic. In the newer residential districts the decorative treatment, enhanced and enlivened by the adoption of the colored tile roofings, is particularly in evidence. The drab all-wooden dwellings of a generation or more ago, with their jarring jig-saw ornamentations stand out in startling contrast with their modern and picturesque neighbors. . . .

The Franciscan padres would marvel today at the variety of roof tiling seen on California homes and business structures. It is a far cry from the days when the padres painstakingly taught the native Indians the art of moulding adobe brick and tiles for the old mission roofs, which sheltered whatever of progress the wilderness of California could then boast.

The material was plain, sticky mud, mixed with straw and gravel, but so well was it prepared and cured that today many of the same bricks and tiles remain in place on the decaying missions in eloquent testimony of the skill of the old padres.

III · Pacific Gas and Electric Building, San Francisco © Moulin, 1925 Bakewell & Brown, Architects

From the heights of upper Market Street the great Granitex shaft uprears itself against bay and sky, its roof of Cordova tile putting on hour after hour new variegations of color, from flaming gold to the russet of falling leaves.

IV · Pacific Gas and Electric Building, San Francisco — Bakewell & Brown, Architects

In the Lincoln kilns of Gladding, McBean & Co. a Granitex brick was developed to match in texture and in color the terra-cotta of the façades, so that this structure, in rear view, preserves its air of dignity and "finish."

V · Pacific Gas and Electric Building, San Francisco — Bakewell & Brown, Architects

The rusticated treatment of these large terra-cotta blocks cunningly enlists the help of shadows to establish the integrity of spacious surfaces broken, but not deprived of continuity, by the arched openings of windows and entranceway.

VI · Pacific Gas and Electric Building, San Francisco — Bakewell & Brown, Architects

For this noble doorway the plasticity of terra-cotta was relied upon to render with scrupulous fidelity the noble conceptions of a Californian sculptor, and the result has been acclaimed as unsurpassed in the achievements of the Lincoln kilns.

VII · Pacific Gas and Electric Building, San Francisco — Bakewell & Brown, Architects

Renaissance architecture, in its adaptation to American "skyscraper" demands, produced this Doric arcade with pinnacles that lift the eye from a sudden exuberance of beauty to a dignified roof-story topped with softly glowing tile.

VIII · Pacific Gas and Electric Building, San Francisco — Bakewell & Brown, Architects

The crowning motive of the structure seems to burst through the businesslike restraint of the shaft below, flowering out in column and entablature, obelisk and pinnacle, all expressed in the plastic freedom of terra-cotta.

GLADDING, McBEAN & CO.

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GARDEN POTTERY

No. 46

Planned rigorously, rounded smoothly, balanced symmetrically, lipped softly for pouring out oil or wine. — RUSKIN.

NEITHER FOR OIL NOR FOR WINE ARE THESE GARDEN VASES OF CALIFORNIAN MANUFACTURE, BUT FOR FLOWERS & SHRUBS. THEIR SUAVE CONTOURS FLOW WITH THE LINES OF PLANTED VISTAS, SOFTEN THE ANGLES OF WALLS, AND LEND A TOUCH OF INFORMALITY TO THE STUDIED CURVES OF PATHWAYS.

GLADDING, McBEAN & CO.

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